

## 第 期における昭和基地オーロラ光学観測

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## Auroral optical observations at Syowa Station during the 8<sup>th</sup> Japanese Antarctic project period

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The 8<sup>th</sup> Japanese Antarctic project started in 2010 as a 6 year project. In the 8<sup>th</sup> period, auroral optical observations are re-assigned in the two different projects as follows:

- **Project 1:** General purpose research observation:

- Title: Interhemispheric conjugacy of the ionospheric response to the solar wind energy input into the magnetosphere during the solar maximum.

- Instruments:

(1-1) All-sky TV camera (Night Viewer & Watec) (ATV)

(1-2) 8ch Scanning Photometer (SPM)

- **Project 2:** Monitoring observation

- Title: Auroral optical observation

- Instruments:

(2-1) All-sky Electron Auroral Imagers (EAI) (557.7nm, 427.8nm) (High sensitivity Cooled CCD camera)

(2-2) All-sky Proton Auroral Imagers (PAI) ( $H\beta$ , Background) (High sensitivity Cooled CCD camera)

(2-3) All-sky Color Digital Camera (CDC) (Nikon D3S)

Main purpose of the observations in the Project 1 is to carry out the simultaneous conjugate observations between Syowa and Iceland with identical instruments during the conjugate period, and that in the Project 2 is to do a long term monitoring of the electron and proton auroral activities through the auroral observation period. These instruments will be running with an automatic operation, and obtained data will be sent to NIPR in near-real time.

In our presentation, we will talk about some details of the specifications and operations of those instruments.

